

Title (en)
MASS SPECTROMETRY ASSAY FOR CONGENITAL ADRENAL HYPERPLASIA

Title (de)
MASSENSPEKTROMETRIETEST FÜR ADRENOGENITALE HYPERPLASIE

Title (fr)
ANALYSE PAR SPECTROMÉTRIE DE MASSE D'HYPERPLASIE CONGÉNITALE DES SURRÉNALES

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Application
EP 18211688 A 20091222

Priority
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• US 2009069305 W 20091222

Abstract (en)
Methods are provided for detecting the amount of one or more CAH panel analytes (i.e., pregnenolone, 17-OH pregnenolone, progesterone, 17-OH progesterone, dehydroepiandrosterone (DHEA), androstenedione, testosterone, deoxycorticosterone, 11-deoxycortisol, and cortisol) in a sample by mass spectrometry. The methods generally involve ionizing one or more CAH panel analytes in a sample and quantifying the generated ions to determine the amount of one or more CAH panel analytes in the sample. In methods where amounts of multiple CAH panel analytes are detected, the amounts of multiple analytes are detected in the same sample injection.

IPC 8 full level
G01N 30/72 (2006.01); **A61K 38/22** (2006.01); **B01D 59/44** (2006.01); **G01N 33/483** (2006.01); **G01N 33/68** (2006.01); **G01N 33/74** (2006.01)

CPC (source: EP US)
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Citation (search report)
• [X] US 6800489 B2 20041005 - DOOLEY KENT C [CA]
• [X] WOLTERS B G ET AL: "Detection of 3beta-hydroxysteroid dehydrogenase deficiency in a newborn by means of urinary steroid analysis", CLINICA CHIMICA ACTA, ELSEVIER BV, AMSTERDAM, NL, vol. 169, no. 1, 30 October 1987 (1987-10-30), pages 109 - 116, XP023398563, ISSN: 0009-8981, [retrieved on 19871030], DOI: 10.1016/0009-8981(87)90399-8
• [X] WUDY S A ET AL: "Determination of 17alpha-hydroxypregnenolone in human plasma by routine isotope dilution mass spectrometry using benchtop gas chromatography-mass selective detection", STEROIDS, ELSEVIER SCIENCE PUBLISHERS, NEW YORK, NY, US, vol. 66, no. 10, 1 October 2001 (2001-10-01), pages 759 - 762, XP004300982, ISSN: 0039-128X, DOI: 10.1016/S0039-128X(01)00109-X
• [X] CARUSO ET AL: "Evaluation of neuroactive steroid levels by liquid chromatography-tandem mass spectrometry in central and peripheral nervous system: Effect of diabetes", NEUROCHEMISTRY INTERNATIONAL, PERGAMON PRESS, OXFORD, GB, vol. 52, no. 4-5, 28 February 2008 (2008-02-28), pages 560 - 568, XP022502416, ISSN: 0197-0186, DOI: 10.1016/J.NEUINT.2007.06.004
• [X] WAN-JIE CHIA ET AL: "Changes in cytochrome P450 side chain cleavage expression in the rat hippocampus after kainate injury", EXPERIMENTAL BRAIN RESEARCH, SPRINGER, BERLIN, DE, vol. 186, no. 1, 27 November 2007 (2007-11-27), pages 143 - 149, XP019585254, ISSN: 1432-1106
• [X] ANDERSSON S H G ET AL: "Effects of ethanol on steroid profiles in the rat testis", BIOCHIMICA ET BIOPHYSICA ACTA - LIPIDS AND LIPID METABOLISM, ELSEVIER SCIENCE BV, AMSTERDAM, NL, vol. 876, no. 2, 15 April 1986 (1986-04-15), pages 352 - 357, XP025901502, ISSN: 0005-2760, [retrieved on 19860415], DOI: 10.1016/0005-2760(86)90294-8
• [XD] SHINDO, N. ET AL., BIOMEDICAL CHROMATOGR, vol. 4, 1990, pages 171 - 4, XP002789226
• [X] A.K.D PERTIWI ET AL: "Pregnenolone metabolites in rat testis: endogenous concentrations, and intracellular distribution in whole testes during incubation in vitro", THE JOURNAL OF STEROID BIOCHEMISTRY AND MOLECULAR BIOLOGY, vol. 81, no. 4-5, 1 August 2002 (2002-08-01), pages 363 - 367, XP055041922, ISSN: 0960-0760, DOI: 10.1016/S0960-0760(02)00114-0

Cited by
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